

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: LEONINI, Luciano

SERIAL NO.: (International Serial No.PCT/EP2004/014156)

FILED: Herewith (International Filing Date: 10 November 2004)

TITLE: DESTEMMING DEVICE AND METHOD FOR HARVESTING MACHINES

REMARKS ON PRELIMINARY AMENDMENT

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Sir:

In conjunction with the filing of the present application, and prior to an initial Official Action on this matter, please amend the above-identified application as provided in the attached Marked Up Copy and Substitute Specification.

Please note that the following amendments in the Substitute Specification apply to the attached specification and claims labeled for "U.S. filing". This combined application incorporates the original application and any amendments or annex to the International Application in the proper order, including the correct original and substitute pages, claims and drawing sheets.

In this preliminary amendment, please consider the following remarks in conjunction with the amendments to the above-identified application as follows:

REMARKS

The present Preliminary Amendment has been entered for the purpose of placing the application into a more proper U.S. format. In particular, certain grammatical and idiomatic inconsistencies have been corrected by amendment to the specification, and the application is

corrected for certain typographical errors found in the originally submitted application. No new matter has been added by these amendments. The present application incorporates the original filing including any amendments made in the international filing. There was no amendment in the International Application, and there is no annex to the International Preliminary Examination Report even though there was an IPER. The IPER considered the claims as originally filed. The specification is an English translation of an originally French language document.

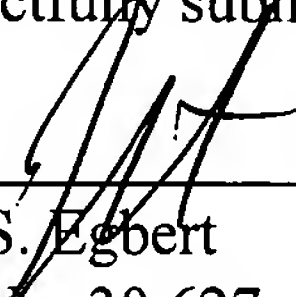
The Claims have been amended so as to conform with U.S. requirements and so as to remove multiple dependent claims. The Abstract has been amended so as to conform to U.S. filing requirements.

Applicant respectfully requests that the present Amendment be entered prior to an initial Official Action on the present application.

5.2.06
Date

Customer No. 24106

Respectfully submitted,



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CLAIMS

I claim:

1. (Currently amended) Destemming method applicable to harvesting machines ~~characterized in that the following takes, taking~~ place in succession, when feeding ~~the~~ rough harvest between the a sloping end of ~~the~~ harvest conveyors-(4) and ~~the~~ harvest collection bowls-(3) on said harvesting machines, said method comprising:

~~=in a first step, extracting of the juice and the grapes detached from the stems by the~~
a crop package-(1); and

~~=in a second step, picking-off of the grape bunches not already destemmed that form~~
~~the~~ a remaining part of ~~the~~ said rough harvest.

2. (Currently amended) Destemming device ~~intended to be~~ installed on a harvesting machine between ~~the~~ a sloping end of ~~the~~ harvest conveyors-(4) and ~~the~~ harvest collection bowls-(3) on said harvesting machine, ~~characterized on that it comprises~~ said destemming device comprising:

an extractor system being located= upstream, in ~~the~~ a direction of ~~the~~ supply of ~~the~~ said rough harvest -(V), ~~an extractor system (5) for~~ and extracting the juice and ~~the~~ grapes-(B) detached from ~~the~~ stems with ~~the~~ a crop package-(1); and;

a stemmer being located= downstream, ~~a stemmer (6, 6')~~ and being provided with an inlet ~~that communicates~~ in communication with ~~the~~ a sloping end of ~~the~~ said extractor system, said stemmer enabling ~~the~~ hacking of ~~the~~ bunches (G) forming ~~the~~ a remaining part of ~~the~~ a harvest and ~~the~~ rejection of ~~the~~ stems and plant and other undesirable waste-(D).

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3. (Currently amended) Method according to claim 1, ~~characterized in that the extraction of~~
~~the~~ wherein said step of extracting juice and grapes detached by the crop package is achieved
comprised of using a conveyor screen(5).

4. (Currently amended) Method according to ~~one of claims 1 or 3, characterized in that the~~
~~hacking of bunches not picked off~~ Claim 1, wherein said step of picking-off of grape bunches is
achieved comprised of using a stemmer (6, 6') ~~of the type~~ with a latticed rotating drum (6a)
containing a rotary stripping scraper(6b).

5. (Currently amended) Method according to ~~any of claims 1, 3 or 4, characterized in that the~~
Claim 4, wherein said stemmer (6') ~~of the destemming system (5-6') or of each destemming system~~
is placed perpendicular to ~~the~~ an extractor or sorter (5) of ~~said system(s)~~ of a destemming system.

6. (Currently amended) Method according to ~~any of claims 1, 3 or 4, characterized in that the~~
Claim 5, wherein said extractor(5) ~~et the~~ and said stemmer(6) are placed one after ~~the other~~ another
in an horizontal or ~~roughly~~ generally horizontal position.

7. (Currently amended) Device according to claim 2, ~~characterized in that the~~ wherein said
extractor (5) ~~consists~~ system is comprised of a conveyor screen ~~executed in the form~~ formed of an
endless belt provided with a mesh and holes sized so as let through only the juice and grapes already
detached by the crop package(1).

8. (Currently amended) Device according to ~~one of claims 2 or 7, characterized in that the~~
Claim 2, wherein said stemmer (6, 6') ~~is of the type containing~~ has a latticed rotating drum(6a) and
a rotary stripping scraper(6b) housed inside said latticed rotating drum.

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9. (Currently amended) Device according to claim 8, ~~characterized in that the~~ wherein said latticed drum (6a) and the stripping scraper (6b) ~~of stemmer (6, 6')~~ turn in a reverse direction.

10. (Currently amended) Device according to ~~one of claims 2, 7, 8 or 9, characterized in that~~ the Claim 2, wherein said extractor or sorter (5), ~~or each extractor (5) of the destemming system (5, 6'),~~ system is installed parallel to ~~the~~ direction of supply of the machine on which said ~~device~~ extractor system is installed, ~~while the said~~ stemmer (6') is being mounted at an angle from said extractor ~~(5) system~~.

11. (Currently amended) Device according to ~~any of claims 2, 7, 8, 9 or 10, characterized in that the~~ Claim 2, wherein said stemmer (6') ~~of the destemming system (5, 6'), or of each destemming system~~ is placed perpendicular to ~~the said~~ extractor or sorter (5) of said system(s) system.

12. (Currently amended) Device according to ~~one of claims 10 or 11, characterized in that~~ Claim 10, further comprising:

a transporting means (7) ~~transports~~ for the harvest from ~~the an~~ outlet of the said extractor or sorter (5) system to ~~the an~~ inlet of the said stemmer (6').

13. (Currently amended) Device according to claim 12, ~~characterized in that~~ wherein said transporting means ~~consists~~ is comprised of a header auger (7).

14. (Currently amended) Device according to ~~any of claims 2, 7, 8 or 9, characterized in that~~ the Claim 2, wherein said extractor (5) ~~et system and said~~ stemmer (6) are placed one after ~~the other~~ another in an horizontal or roughly generally horizontal position.

15. (Currently amended) Device according to ~~any of claims 2 or 7 through 13, characterized in that~~ Claim 2, further comprising:

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a suction means, ~~for example consisting~~ being comprised of an aspirator (9) is arranged above ~~the~~ said extractor ~~or sorter (5)~~ system.

16. (Currently amended) Harvesting machine, ~~characterized in that it comprises~~ comprising:
at least one, and preferably two destemming ~~systems (5-6 or 5-6')~~ devices according to ~~any of claims 2, or 7 through 15,~~ Claim 2, installed between ~~the~~ a sloping end of ~~the~~ harvesting conveyors (4) and harvest collection bowls (3).

17. (Currently amended) Harvesting machine according to claim 16, ~~characterized in that the~~
wherein said extractor ~~or sorter (5) of the destemming system (5-6 or 5-6')~~ system is integral with ~~the~~ a frame of said machine, while ~~the~~ thereof, said stemmer (6') and ~~the~~ an aspirator (9) are being mounted on ~~the on the~~ a casing of the harvest collection tipping bowls (3).

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ABSTRACT OF THE DISCLOSURE

The ~~invention relates to a~~ destemming device ~~to be~~ is installed on a harvesting machine, between the sloping end of the harvesting conveyors ~~(4)~~ and the harvest collection bowls ~~(3)~~ pertaining to the machine. ~~Said~~ The destemming device ~~is characterised in that it comprises~~ includes, upstream in the direction of the supply of the rough harvest ~~(V)~~, an extractor system ~~(5)~~ for extracting the juice and the grapes ~~(B)~~ detached from the stems by the crop package ~~(1)~~; and, downstream, a stemmer ~~(6)~~ provided with an inlet that communicates with the sloping end of the extractor system, ~~said~~ The stemmer ~~enabling~~ enables the hacking of the bunches ~~(G)~~ forming the remaining part of the harvest, and the rejection of the stems, plant waste and other undesirable products ~~(D)~~.